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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,480	12/14/2001	Antonio Filipe Falcao Montalvao	D-20,920	1026

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EXAMINER

REIFSNYDER, DAVID A

ART UNIT	PAPER NUMBER
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1723

6

DATE MAILED: 06/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/014,480

Applicant(s)

MONTALVAO ET AL.

Examiner

David A Reifsnyder

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1; the recitation in claim 1 of “especially water” is vague and indefinite as to whether the liquid to be deareated must be water.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 6 and 7 rejected under 35 U.S.C. 102(b) as being anticipated by Cheng '916.

Regarding claims 6 and 7; Cheng' 916 discloses an apparatus comprising; a means to inject gas (17), which is in fluid communications with a conduit (6), which is in fluid communication with a inlet to a venturi-mixer (7), the venturi-mixer (7) having a

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converging pressure reduction and velocity increasing portion (9), a throat section (10), and a diverging velocity decreasing section (11) and an outlet which is in fluid communication with a line (19) which is in fluid communication with an inlet to a separatory vessel (1). Furthermore, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Furthermore, the material treated is not a structural limitation of the instantly claimed apparatus. Ex parte Masham, 2 USPQ2d 1647 (1987).

Claims 1, 6 and 7 rejected under 35 U.S.C. 102(b) as being anticipated by Serfass et al.

Regarding claims 1, 6 Serfass discloses an apparatus and method for deaerating an aqueous solution containing dissolved air; comprising; introducing a stream of the aqueous solution containing air through an inlet of an aeration chamber (14); flowing the stream of the aqueous solution containing dissolved air through a venturi (27) to cause the dissolved air to separate from the aqueous solution as a gas; and recovering said aqueous solution separately from said gaseous air, the gaseous air forming as macro bubbles on a filter adjacent to the venturi (27) (col. 6, lines 15-25 and fig. 6) Furthermore, regarding claim 7; the inlet to the aeration chamber (14) is surely capable of being a means to inject gas; and it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate

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the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng '916 in view of Cheng '406.

Regarding claims 1-5; Cheng' 916 discloses a method for stripping a stream of liquid that contains dissolved volatiles, comprising; providing a stream of said liquid containing dissolved volatiles into an inlet (6) downstream of a venturi-mixer (7); injecting nitrogen stripping gas through a line (17) which is in fluid communication with the inlet (6) to create a gas-liquid mixture; flowing said gas-liquid mixture through an

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inlet into the venturi-mixer (7), the venturi-mixer (7) having a converging pressure reduction and velocity increasing portion (9), a throat section (10), a diverging velocity decreasing section (11) and an outlet, wherein the nitrogen stripping gas and the dissolved volatiles completely separates from the gas-liquid mixture to create a stripped de-gassed liquid and gas in the converging pressure reduction and velocity increasing portion (9) of the venturi-mixer (7) (col. 4, lines 50-67); feeding said stripped de-gassed liquid and gas to a separatory vessel (1); recovering said stripped de-gassed liquid separately from said gas in the separator vessel (1) before the gas redissolves in the stripped degassed liquid; and venting the gas out of the separator vessel (1) through elements (20, 21, 23, 24 and 26).

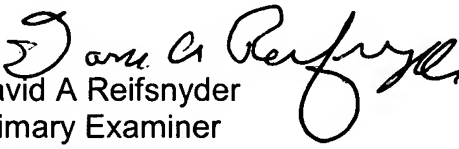
Regarding claim 1-5; Cheng '916 discloses a stripping method as discussed above but fails to disclose that his stripping method using a venturi-mixer stripping apparatus can be used to strip dissolved gases from a liquid that contains those dissolved gas. Regarding claims 1-5; Cheng '406 teaches on column 1, lines 15 that it is known to use a venturi-mixer stripping apparatus to strip dissolved gases from a liquid containing those dissolved gases. It is considered that it would have been obvious to one having ordinary skill in the art at the time of the invention to have for Cheng '916 to have stripped dissolved gases from a liquid containing those dissolved gases with his venturi-mixer stripping apparatus, since Cheng '406 teaches that it is known to strip dissolved gases from a liquid containing those dissolved gases using a venturi-mixer stripping apparatus.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A Reifsnyder whose telephone number is 1-703-308-0456. The examiner can normally be reached on M-F 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda M Walker can be reached on 1-703-308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are 1-703-872-9310 for regular communications and 1-703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 1-703-308-3601.


David A Reifsnyder
Primary Examiner
Art Unit 1723

DAR
June 23, 2003